

ART. XVII.—*Notes on Amycterides, with Descriptions of
New Species.*

[PART II.]

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[Read November 12th, 1914].

A.—*Notes on the distribution of the subfamily in Victoria.*

The study of the distribution of most of the groups of our Australian insect fauna, is as yet only at a beginning. In the Coleoptera many thousands of species have been described and are being described yearly, and yet, so far, little work has been done towards the correlation of the facts of distribution, their dependence on natural barriers, food supply and other factors. It is true, of course, that much is known about the habits and distribution of many groups; thus the *Carenides*, as also the *Helaeides*, are well known to be interior forms, lovers of the inland slopes and dry plains of the interior, while other forms such as *Notonomus* and *Cardiothorax* are denizens of the well-watered eastern slopes and coastal scrubs. Viewed thus broadly the *Amycterides* are typical inland forms, rich in species on the mountain ranges, fewer in species, but widely distributed, over the inland plains. It is not my purpose here to discuss in detail the distribution of the subfamily; but certain facts or deductions may be mentioned, in order to facilitate a discussion of the distribution in Victoria. In this connection it may be mentioned that much light will probably be brought to bear on the subject by the application of Mr. R. J. Tillyard's scheme of Specific Contours; so far lack of sufficient data has prevented more than a very general outlining of the contours.

From a consideration of the present distribution it is obvious that, while the subfamily originally developed from a common source, secondary zoocentres have now developed, resulting in several types of distribution, all of them, according to Mr. Tillyard's scheme, entogenic in character.

The genus *Cubicorrhynchus* represents the most generalised type of distribution, it occurs in all the States and appears to be equally

rich in species in all. *Acantholophus* also is generally distributed, but is undergoing development along separate lines in the East and in the West. A second type of distribution is exemplified by the genus *Psalidura*; this has its headquarters, or zoocentre, in the Main Dividing Range of Northern N.S.Wales, spreading thence along the whole eastern mountain system and down the western slopes. *Scelerorinus* is an example of a third type, radiating from a zoocentre in the neighbourhood of the head of Spencer Gulf, in South Australia. A western distribution with its headquarters in the south-west of West Australia probably also exists, the distribution of the "*Euomides*" suggests this; while the genus *Notonophes* suggests the existence of a north-western type.

In turning now to Victoria, it will be seen that its geographical position is between the zoocentres of the second and third types of distribution outlined above. Consequently we would expect to find the predominant species in eastern Victoria closely allied to New South Wales species, and in western Victoria to South Australian species. Unfortunately, as yet, too little detail is known about the habitats and range of many of the Victorian species, to enable an exact determination of their distribution; in the main, however, the species are distributed as above indicated.

Many regions of Victoria, however, appear to have been almost completely neglected from an entomological point of view. This is the more to be deplored, since with the advent of settlement, the breeding grounds are being destroyed, and the extinction of many local forms is not beyond the bounds of possibility.

The distribution of the *Amycterides* in Victoria may perhaps be best approached by a discussion of the distribution of the different genera.

PSALIDURA.—Of the 11 groups into which this genus has been subdivided, but three are known to occur in Victoria.

P. approximata has been recorded from Mt. Buffalo; it is the most southerly representative of the horned-jaw group (miragroup), which extends northward as far as Southern Queensland. It is of interest as being more closely allied to *P. miracula*, which occurs in the Blue Mountains in N.S.Wales than to *P. carteri* (Mt. Kosciusko), or *P. mira* (var. *Edenensis*; Eden).

P. flavosetosa is a species belonging to the candata-group, and appears to have entered Victoria from the west. The candata-group consists, as at present known, of but three species, but these are spread over an immense extent of country, from Central

Queensland to South Australia. The range of *P. flavosetosa* extends from Fowler's Bay in South Australia to the Mallee country in north-west Victoria (Ouyen, Sea Lake).

The bulk of the Victorian species of *Psalidura* belong to the *mirabunda* group, a group which is typically Victorian though overlapping into surrounding States. *P. mirabunda* is almost certainly the original *Curculio mirabilis* of Kirby, and that name should take precedence; the names *impressa*, *crenulata*, *Howitti* and *Helyi* have already been relegated to synonymy. Tasmania is embraced in the range of the species, and it appears to be common along the southern portions of Victoria; I have records of the following Victorian localities:—Thorpdale, Flinders, Ferntree Gully, Mordialloc, Melbourne and Wallan. Most of the specimens I have seen were labelled merely Tasmania or Victoria. Of its western limit I am uncertain, I have never received it from Portland, but there is a specimen in the National Museum labelled South Australia.

P. monticola was described from specimens taken by Mr. T. G. Sloane at Mt. Buffalo, I have recently received a specimen from Mr. J. E. Dixon from Tallangatta, while specimens in the National Museum are from the Victorian Alps. The range of the species therefore includes the north-eastern mountains, but its limits are at present unknown.

P. cultrata was described from material originally in the Castlenau collection. I have a note that one specimen was labelled Melbourne, but it is strange that I have never seen specimens from another source.

P. Helmsi was described from Benalla (R. Helms).

P. flavovaria occurs at Portland and in South Australia, the specimens from the latter State, that I have seen, were without locality labels. A variety of this species occurs at Mt. Macedon.

The locality of *P. Levi* (herein described) is unknown.

TALAUINUS.—The distribution of this genus has not yet been satisfactorily worked out; probably because the genus, as at present constituted, is extremely complex and requires subdivision. In the main, however, the tuberculate and costate sections, which comprise the typical species, correspond in their distribution to *Psalidura*; with, in the case of the tuberculate forms, a secondary zoocentre in South-west Australia. The distribution of the granulate forms is much more puzzling; almost absent in N.S. Wales, where the tuberculate and costate forms are most abundant, they are common in Victoria, South Australia, to a less extent in

Western Australia, and common also in Queensland. Of this section of the genus, Victoria possesses 7 species.

T. Riverinae, Macl., enjoys a wide range from the Riverina in New South Wales, through the north of Victoria to Port Lincoln in South Australia; it is common in the Mallee country in Victoria, and probably occurs throughout the country north of the Dividing Range.

T. tomentosus Boisd. occurs along the southern sea-board, from South Australia to Wilson's Promontory; I have also seen it from King Is.

T. penicillatus Macl. is the Tasmanian representative of *T. tomentosus*, and is rather doubtfully distinct. I have a specimen labelled as Victorian.

T. tenebricosus Ferg. occurs chiefly in the southern portion of the State; it is common about Melbourne, and I have specimens from Benalla.

T. Howitti Macl. also occurs in the neighbourhood of Melbourne.

T. simplicipes Lea was described from South Australia, but is common in western Victoria and as far east as Melbourne.

Of the tuberculate section 8 species occur in Victoria.

T. tuberculatus Macl. occurs in the vicinity of Melbourne. *T. hystrix*, a closely allied species, is herein described as new from Portland.

T. typicus Macl., or a new species closely allied to *typicus*, I have seen from Benalla.

T. acutipennis Ferg., a closely allied species, occurs at Melbourne and Mt. Macedon.

T. melancholicus Lea is also from Mt. Macedon.

The distribution of these species is interesting, as in almost all the cases they are nearly allied to New South Wales forms not recorded from the intervening country. Thus *T. tuberculatus* and *T. hystrix* find their nearest allies in *T. verrucosus*, from central eastern N.S. Wales, and *T. halmaturinus* from Kangaroo Island; and furthermore the Kangaroo Island species is more nearly allied to the New South Wales species than it is to the Victorian. *T. acutipennis* is most nearly allied to *T. typicus*, but, as noted above, this species, or one very closely related to it, comes as far south as Benalla. *T. melancholicus* is related to *T. turneri* from Mt. Kosciusko.

T. angustus Ferg. and *T. perplexus*, n.sp., are two closely related forms allied to the *bucephalus* group. *T. angustus* occurs at Mt.

Macedon, Ballarat and Glenample, and probably elsewhere, most of my specimen being labelled Victoria. *T. perplexus* is from Portland.

T. scaber Boisd., an aberrant tuberculate form, occurs inland in Victoria.

The costate section is represented in Victoria by several fine species.

T. impressicollis Macl. (syn. *T. hiscipennis*), I have from Dandenong and Narracan. I believe it also occurs at Warburton.

T. laevicollis Pasc. has a similar distribution, most of the specimens I have seen were labelled Gippsland.

T. costipennis Ferg. occurs among the Dandenong Ranges, and probably near Melbourne; I have never seen it from Mt. Macedon.

T. carinatus Ferg. is found at Portland. It is closely allied to *T. laevicollis* and *T. costipennis*, and also to *T. Kirbyi* from New South Wales.

SCLERORINUS.—This genus is represented in Victoria by species belonging to 4 distinct groups. The most abundant species belong to the Adelaidae-group; and three species have been described. Of these *S. Howitti* is conspecific with *S. tristis*, while *S. obliterated* is somewhat doubtfully distinct. But the species of this group present such variation in size and structure that it is extremely difficult to find good specific distinctions. *S. tristis* occurs along the southern sea-board and is also found in Tasmania and South Australia. Of the locality of *S. obliterated*, I am uncertain, but, if I am correct in my identification, it occurs at Mt. Buffalo and in the Australian Alps.

S. inornatus, n.sp., is closely allied, and is from Gippsland; but a closely related form occurs at Portland. Several other species of this group also probably exist in Victoria, as a number of single specimens have passed through my hands, which I have been unable to certainly identify with any described form.

Including these forms, the group appears to extend over the greater part of Victoria with the exception of the north-west. The group is essentially a South Australian one, and the Victorian species are more numerous in the western part of the State, but follow the mountain ranges right into New South Wales.

The sabulosus group is represented by *S. Dironi* and *S. Goudiei*, two species herein described, and both closely related to *S. sabulosus*. Of these *S. Dironi* occurs at Ouyen and Kow Plains, and *S. Goudiei* at Birchip. A third representative of this group is *S. amycteroides*, of which all the specimens I have seen came from Portland.

The *vestitus*-group has several representatives.

S. vestitus Macl., occurs in the Mallee country, my specimens are from Birchip and Sea Lake.

S. sublineatus also occurs in the Mallee, and I have received it from Melbourne. Both of these species are common in South Australia, they appear to have spread across into the north-west of Victoria, and, so far, I have not seen specimens from the south-west corner of that State.

S. alpicola Ferg. from the Victorian Alps is the southern form of *S. inconstans* Lea, from Mt. Kosciusko.

S. tuberosus Macl. was described from Victoria, but I am unacquainted with its exact habitat. *S. mucronatus* is probably a synonym.

S. mucronipennis Ferg. occurs at Nelson, in the south-west corner of Victoria. Both of these species are related to *S. Germari* from South Australia, and appear to have spread into Victoria by a more southerly route than *S. vestitus*.

S. dilaticollis Macl. occurs about Melbourne, and *S. bubalus* extends from South Australia to Tasmania. These two species are representatives of a fourth group of the genus, which is now more characteristic of New South Wales than of South Australia.

S. Riverinae Macl., an aberrant species, is widespread north of the Dividing Range and extends into New South Wales.

OPETIOPTERYX.—This genus was described from a single specimen—*O. frigida* Blackb.—taken on one of the higher mountains in the Victorian Alps. The genus is unknown to me, but is probably allied to *Sclerorinus*.

ACANTHOLOPHUS.—The Victorian species of this genus are more characteristic of the eastern forms than of the western. So far comparatively few species have been recorded from Victoria; doubtless more remain to be discovered.

Ac. spiniger Macl. has a wide range, extending into New South Wales. Of its Victorian range I am uncertain, most specimens I have seen were labelled Victoria. I believe it occurs in the vicinity of Melbourne.

Ac. approximatus is widely distributed. I have or have seen specimens from Bullarook, Ararat, Dandenong Ranges, Gippsland and the Grampians. It is allied to *Ac. Adelaidae* of South Australia.

Ac. Dixoni, n.sp., and *Ac. angusticollis*, n.sp., both herein described, occur at Portland. They probably both belong to the same group.

Ac. squamosus Macl. occurs in the mountains to the north-east of Melbourne. My specimens are from Narbethong, I have seen it also from Warragul.

Ac. sublobatus Macl. was founded on a ♂ of *Ac. squamosus* and a ♀ of *Ac. approximatus*.

Ac. denticollis Macl., or its variety *serraticollis*, occurs in Victoria; I have seen specimens from Benalla.

An undescribed *Acantholophus* is also in my collection from the Victorian Alps.

Ac. brevicornis, herein described, is a geographical race of *Ac. dumosus* Bohem., which occurs at King George Sound in West Australia. *Ac. brevicornis* is from Portland.

CUBICORRHYNCHUS.—This genus is widespread throughout Australia; it is a lover of the slopes and plains, and is rare in the mountain districts. The genus is still in a considerable degree of confusion, and probably Victoria will be found to possess more species than are here noted.

C. maculatus Macl. This species is widely distributed over eastern Australia west of the Dividing Range, and is common inland in Victoria. *C. brevipes* Lea, described as a variety of *C. maculatus* appears also to be common in Victoria.

C. globicollis Lea occurs at Melbourne and probably elsewhere in the State. I have a specimen from Albury in New South Wales.

C. sterilis Pasc., described from Victoria, I have never identified.

Of the *Euomid* genera Victoria has five representatives.

TETRALOPHUS.—Three species at least occur in Victoria. *T. sculpturatus* Waterhouse I have seen from Portland and Melbourne.

T. incanus Pasc., described from Victoria, is unknown to me. The third species is represented by a single specimen in my collection from Portland, it is undescribed. *T. elevatus* Pasc. probably also occurs in Victoria.

DIALEPTOPUS has one representative—*D. ferreus*, described by Pascoe from Victoria; I have not seen a Victorian specimen. The genus is common in South Australia.

MYTHITES.—Three Victorian species have been described. Of these *M. tuberculatus* Lea appears to be widespread; *M. poropteroideus* Lea is from Geelong; while *M. granulatus* Lea is, I believe, found near Melbourne. *Bubaris pithecius*, a New South Wales species, also occurs in Victoria.

Sosytelus rugicollis Lea is another New South Wales species which occurs in Victoria. I have no precise records of the locali-

ties where the Victorian specimens of the last two species were taken

In addition to the above list two others—*Acantholophus convexiusculus* and *Amorphorrhinus australis*—probably also occur, I believe I have seen Victorian specimens, but cannot now trace the record.

Viewing the problem broadly, it appears to me probable that the Amycterid fauna of Victoria has developed as the result of emigration from more than one zoocentre. The genus *Psalidura* has probably spread into Victoria from the north-east. Probably the granulate forms first emigrated and by their isolation in different mountain ranges have now evolved the various species of the mirabunda-group. The costate forms, represented by *P. approximata*, have only reached the north-east corner, while no representatives of the tuberculate forms have yet been recorded. The tuberculate and costate sections of the genus *Talaurinus* appear to have followed similar lines; in the case of the costate forms they have not yet reached into South Australia, though the tuberculate forms have proceeded as far as the south-west of West Australia, where they have evolved a secondary zoocentre.

A second line of invasion appears to have been from the west, and there is some evidence to show that two routes have been followed. The fauna of the Mallee country is typically South Australian, and such forms as *Sclerorinus dixonii* and *Sclerorinus vestitus* are characteristic. The fauna of the south-west contains equally typically South Australian forms, but of a different type, and is exemplified by such forms as *Sclerorinus tristis*, *Sclerorinus mucronipennis* and *Talaurinus simplicipes*. I have written the above with some hesitation, as though familiar with the Amycterid fauna of the Mallee country and of Portland in the south-west, I have seen few species from the mid-western parts of Victoria.

The species of *Cubicorrhynchus* and to a less extent of *Acantholophus* are so widespread that it is difficult now to trace their emigrations. Probably they are representatives of a branch split off before the evolution and differentiation of the genera of the *Psalidura-Talaurinus-Sclerorinus* complex. Too little has been done in regard to the distribution of the Euomid genera to enable one to form an accurate conception of their mode of spread; probably, however, most of the Victorian forms came from the west.

Many points of interest in the distribution of these insects suggest themselves as worthy of further study, but too little is

known at present of local faunas to enable any but very broad lines to be indicated. The correlation of distribution with physiographic features and geological changes also requires investigation. Much interesting is also the question of the invasion of Tasmania by these insects, but that cannot be touched on here.

I have purposely dealt solely with the Amycterides in this discussion, but it is possible that other groups will be found to have followed similar lines of distribution.

In the case of wing insects the factors governing distribution are so different that the result is likely to be quite different. The Amycterides, however, are typically wingless ground forms, which have travelled a long way in a very long time. Possibly a close study of their distribution may enable some light to be thrown on the geological history of our country.

B.—*Descriptions of new species, with some notes on previously described forms.*

PSALIDURA VESTITA, n. sp.

♂ Elongate, elliptical-ovate; size large. Black; rather densely clothed with dingy yellow subsquamose pubescence; clothing more or less uniform above, except on prothoracic granules and elytral interstices; below clothing present on sternal segments, on the first abdominal, at sides of the second, and at bases of the other ventral segments; legs more or less clothed. Setae rather light brown.

Head and rostrum as in *P. Mastersi*. Prothorax (6.5 x 7 mm.) very similar to *P. Mastersi*, slightly more elongate; granules, if anything, slightly smaller. Elytra (14 x 8 mm.) in shape similar to *P. Mastersi*; the foveae regular, somewhat obscured by the clothing, the intervening ridges fairly regular, in the more lateral striae, each ridge with a definite setigerous granule in the middle; interstices subcostiform, with obsolete granules, these becoming more definite on the more laterally placed interstices. Beneath as in *P. Mastersi*; the forceps thin, very similar, slightly more incurved to apex.

♀ Larger and more robust; the prothoracic granules rather coarser; elytral foveae less definite, the intervening ridges setigero-granulate in all the striae. Beneath convex, without anal excavation or forceps.

Dimensions.—♂ 23 x 8 mm.; ♀ 25 x 9.5 mm.

Except for the clothing, there is nothing to distinguish the present species from *P. Mastersi*. The clothing is, however, quite distinct.

tive and appears to be constant. The contrast between the rather nitid *P. Mastersi*, with hardly a vestige of clothing, and this dull, densely clothed species is too great to allow me considering them as otherwise than specifically distinct.

The type ♂ is from Richmond Downs, Queensland, and is in the collection of the Queensland Museum; the type ♀ in my own collection, and a second ♀ in the National Museum, Melbourne, came from Mr. C. French, and are labelled Queensland, without a definite locality.

PSALIDURA LEAI, n. sp.

♂ Elongate, subparallel. Black, legs diluted with reddish; clothing absent; setae black, decumbent.

Head strongly convex, partially concealed by prothorax, moderately closely setigero-punctate. Rostrum very short, wide; internal ridges prominent, somewhat convergent, separated at base by a distinct median notch; median area strongly depressed in front; sublateral and basal sulci continuous, rather deeply impressed. Submentum with median tooth, forwardly directed. Prothorax (6 x 6 mm.) evenly rounded on sides, median lobe produced over head to some extent; subapical construction faint but traceable; disc somewhat flattened, with median line feebly impressed; closely set with small, rounded, contiguous, setigerous granules, these somewhat smaller towards centre. Elytra (13 x 8 mm.) evenly rounded from behind base to apex, apex abruptly rounded, mucronate at suture; humeral angles thickened, out-turned. Disc foveo-striate; striae moderately deep; foveae small, punctiform, slightly transverse, and ill-defined, ridges between foveae little raised, each with a fine setigerous granule; interstices moderately prominent, the third and fifth slightly more so, set with small depressed umbilicate setigerous granules, in double, frequently in triple, series, on the fourth and sixth in single series, duplicated in the middle. Metasternum transversely concave, more deeply depressed in middle along intercoxal process; at sides on a level with middle coxae. Fifth segment strongly excavate, anterior wall of excavation almost vertical; excavation reaching to anterior margin of segment in the middle; preanal fossa deeply set, slightly transverse. Fascicles moderately large, separated about 1.5 mm. Forceps longer than in *P. cultrata*, projecting beyond apex of elytra when not extended, broad at base, gradually narrowing beyond insertion of laminae; apex somewhat obtusely pointed; with a ridge or setose hair down centre of inner surface. Laminae inserted behind setose

ridge, very long, parallel-sided, apices broadly rounded; slightly curved inwards. *Dimensions*: ♂ 20 x 8 mm. *Hab.*—Victoria? Type in A. M. Lea's collection.

Close to *P. cultrata* but distinguished by its longer forceps; there are also differences in the elytral sculpture. In *P. cultrata* the length of the forceps beyond the insertion of the laminae is 1.5 mm., in *P. Leai* 2.5 mm. In the type the genitalia are partly extruded and in consequence the laminae overlap, in another specimen the genitalia are at rest and the apices of the forceps merely touch. In my table this species would fall beside *P. Sloanei*, but the absence of clothing together with shape of the forceps, not twisted, will separate it.

TALaurINUS.

Through the kindness of Mr. K. G. Blair of the British Museum, who, at my request, made an examination of Bohemann's types in the Hope Collection, I am now able to clear up the question of the identity of the species comprised in the *semispinosus*-group. The species constituting that group are all very closely allied and also very variable, so that it is difficult to find reliable features for separating the species. It is quite possible that some of these species, here regarded as distinct, are not really so; but I think it advisable to attach names to the most distinctive types, although in some cases there may be intermediate forms tending to link them up. The puncturation of the external rostral ridges and of the head, I have found of some importance. The clothing is on the whole fairly constant. The tuberculation, both of the prothorax and elytra, though to a certain extent variable, can also be made use of.

Talaurinus Roei Bohem. This is not the species redescribed by me, but is identical with *T. funereus* Pascoe. It differs from all others of the group in the much more closely and rugosely punctate head and external rostral ridges, the latter being distinctly convergent posteriorly. The head and rostrum, as viewed in profile, are not in the same plane above; the prothorax is closely and finely granulate; the elytra have the tubercles more acute, and more spinelike, than in any other of the group. Of this species I have an extensive series taken by Mr. H. J. Carter at Gingin, Western Australia, and it is not too much to say that no two specimens are alike. The chief variation is in the number of the elytral tubercles; the head and rostrum and the prothorax are constant in their sculpture.

Talaurinus semispinosus Bohem.; *T. pastillarius* Bohem.; *T. pustulatus* Pasc. From Mr. Blair's notes these names appear to belong to but one species. It is perhaps the commonest species in Western Australia, and is very variable. The type of *T. pastillarius* was not examined, this should be in the Stockholm Museum; but specimens so^o labelled in the Hope Coll., were considered by Mr. Blair to be conspecific with *T. semispinosus*. The puncturation of the rostral ridges is fairly close, but not as in *T. Roei*. The prothorax is fairly closely granulate, but is variable in this respect, the median granules, or tubercles, in some specimens being more spaced out and slightly transverse. The elytral tubercles are variable in number, and also in size, particularly on the more lateral interstices; as a rule they are of moderate size, and the apical and lateral ones subconical.

T. simulator Pasc. Compared with the last species *T. simulator* has the tubercles rounded, shiny, and more numerous on the fourth and fifth interstices. Specimens identified for me by Mr. Blair have the head and rostral ridges almost impunctate, only a few obsolete punctures being traceable. My specimens came from Kellerberrin, Western Australia. Other specimens from Eucla and Eyre's Sandpatch are smaller and possibly distinct.

Talaurinus echinops Pasc. Though described as a *Sclerorinus*, this species is certainly congeneric with *T. semispinosus*. It is a more densely clothed species, with more numerous tubercles. The head and rostral puncturation is much as in *T. semispinosus*, and the prothoracic granules are small and closely placed. In general appearance it is not unlike *T. Roei*, but the head and rostrum are in the same plane above, the rostral punctures are different, and the elytral tubercles are stouter.

T. validus, n.sp. This species may be distinguished by its strong elytral tubercles, much larger than in *T. semispinosus*. The punctures of the head and rostrum are obsolescent. The prothoracic tubercles are large and widely separated.

Talaurinus Leai, n.sp. Close to the last species and with similar strong elytral tubercles, it differs in the more closely punctate head and rostrum, and in the smaller, much more closely placed prothoracic tubercles.

Talaurinus Westwoodi Bohem. The type of this species was also examined by Mr. Blair, and it proves to be synonymous with *T. bucephalus* Olivier.

Talaurinus excavatus Bohem. Mr. Blair has kindly sent out specimens compared with the type in the Hope collection. It is the

species I have re-described as *T. rugifer* Boisd. I have now little doubt that this synonymy is correct.

SCLERORRHINELLA.

S. Manglesi Bohem. Mr. Blair has examined the type, and has determined my specimen as correctly named.

S. melanopsis Pasc. A specimen compared with the type of *T. melanopsis*, has been sent out for examination. It is certainly a *Sclerorrhinella* and distinct from *S. Manglesi*. The species may be recognised by its strong closely set elytral tubercles, and by its lack of clothing. The specimen sent is a male, and measures 14 x 6 mm.

TALaurINUS GRANULATUS, n. sp.

♂ Ovate, general facies that of *T. Riverinae*. Black; densely clothed above with brown subpubescence; head and prothorax trivittate, elytra irregularly maculate with white, the white clothing predominating on sides; ventral segments feebly maculate with yellowish setae in centre and with white laterally; legs mottled white. Setae dark brown. Head and rostrum as in *T. Riverinae*. Prothorax (3.5 x 4.5 mm.) rotundate; with deep post ocular emargination and prominent ocular lobes; closely set with small, but prominent, rounded, umbilicate, setigerous granules, partially concealed by clothing, and larger than in *T. Riverinae*. Elytra (9 x 7 mm.) rather widely ampliate, strongly declivous posteriorly; apex subtruncate; base gently arcuate, the humeri marked by a small granule, not prominent. Disc puncto-striate, the punctures shallow, indefinite, intervening ridges low, each with a small setigerous granule; interstices closely granulate throughout in single series, the granules prominent, umbilicate, partially obscured by clothing, larger than in *T. Riverinae*. Undersurface as in *T. Riverinae*.

♀ More elongate-ovate; the undersurface convex, fifth segment with a slight transverse impression near middle, not excavate.

Dimensions.—♂ 13 x 7 mm.; ♀ 14 x 6 mm. .

Hab.—Purnong R., Murray River, South Australia (S. W. Fulton). Type in National Museum, Melbourne. Close to *T. Riverinae*, but with the granules both on prothorax and elytra evidently larger than in that species.

TALaurINUS SIMPLEX, n.sp.

♂ Small, elongate-ovate, in general facies like *T. maculipennis*. Black, densely clothed with greyish subpubescence, prothorax trivittate, elytra maculate with lighter grey. Setae bright yellow.

Head and rostrum much as in *T. maculipennis*; antennal scape long. Prothorax (3 x 4 mm.) rounded on sides, apical margin feebly rounded above, with moderately definite post ocular emargination; subapical construction moderately well marked; closely set with small, rounded, setigerous granules, sides also granulate. Elytra (7 x 5 mm.) elongate, at base not quite so wide as prothorax, gradually widening backwards; base generally arcuate; humeri not produced. Disc with series of small shallow foveiform punctures, the intervening ridges setigerous, not definitely granulate; interstices with small obscure setigerous granules in single series; sides with granules obsolete. Intermediate ventral segments rather long; apical segment with a broad shallow depression in middle, running into a deeper transverse sulcus, depression bounded on either side by a strongly raised somewhat obliquely set ridge or tubercle. Tibiae simple, without subapical emargination. *Dimensions*: ♂ 12.5 x 5 mm.

Hab.—South Australia, Warburton Ranges (Hacker); Ouldea (South Australian Museum). Type in A. M. Lea's collection.

In general appearance remarkably close to *T. maculipennis*, but readily distinguished by the simple tibiae. *T. simplicipes* is a shorter insect with different rostral sculpture, shorter and stouter antennal scape and different apical excavation. *T. Howitti* also differs in the structure of the excavation. *T. flaveolus*, inter alia, has very different clothing and an almost obliterated elytral sculpture. This species was amongst the Amycterides in the South Australian Museum, but was not described as new until it could be compared with *T. carbonarius*; Mr. Blair of the British Museum has since informed me that it is not that species.

TALaurINUS PERPLEXUS, n. sp.

♂ Size moderately large, elongate-ovate. Black; densely clothed with obscure, mingled brownish and golden, subpubescence; feebly trivittate with light grey on prothorax, vittate along disc of elytra, internal to fifth interstice; ventral segments maculate in middle with yellow, forming an almost continuous vitta. Setae dark, reddish brown.

Head continuous in profile with the rostrum; forehead feebly flattened. Rostrum moderately deeply excavate; external ridges subparallel; internal ridges prominent, long, slightly convergent, not meeting; median area moderately deeply depressed, narrow, sulciform; sublateral sulci long, moderately deep. Scrobes open posteriorly. Eyes large, ovate. Antennal scape moderately long. Prothorax (3.75 x 4 mm.) little wider than long, rather feebly rounded on sides; apical margin rounded above, with moderately marked postocular emargination, but with lobes indefinite; transverse subapical impression well marked, median impression feeble, more marked posteriorly. Disc rather closely set with small round granules, smallest about centre, larger along subapical impression; sides also granulate. Elytra (11 x 6 mm.) elongate, at base as wide as prothorax, gently widened from base backwards; base gently emarginate, humeri very slightly produced. Disc with punctures indefinable, but with intrastrial granules distinct, often confused with the interstitial tubercles; interstices with small tubercles, for the most part hardly larger than granules; second with about eight isolated ones, small at base; becoming larger posteriorly, one or two being on declivity; third with small granuliform tubercles, irregularly arranged in double series from base to middle, thence in single series, tubercles not reaching to apex; fourth with one or two small tubercles about middle; fifth with tubercles similar to third but inconstant in arrangement, basal tubercles generally in double series; sixth with a single row of from six to ten small tubercles, not extending to base or apex. Sides with interstitial granules in single series. Beneath flat; intermediate segments long; fifth segment with a feeble subquadrate impression, with a small tubercle on either side near apex, partly obscured by setae.

♂ Rather more ovate than ♀; elytral sculpture similar, but even more confused; beneath gently convex, fifth segment without impression.

Dimensions.—♂ 17 x 6 mm.; ♀ 17 x 6.5 mm.

Hab.—Victoria, Portland (J. E. Dixon, also from National Museum and British Museum).

Of this interesting species, I have recently received 26 specimens, from J. E. Dixon, of Melbourne. Though I believe it to belong to the tuberculate section of the genus, the tubercles are so fine as to be mere granules. It is most nearly allied to *T. angustus*, also a Victorian species, and the elytral tubercles are fine in both species, but the differences in arrangement, and especially the conspicuous

intrastrial granules, will not permit me regarding them as conspecific. I have described the clothing from a specimen in good preservation, most of the series before me, however, have a more or less uniform, dingy clothing. The elytral sculpture varies considerably, particularly in regard to the degree of duplication of the tubercles on the third and fifth interstices. On the fifth the basal tubercles, for perhaps a quarter of the length of the interstice, are generally arranged, sometimes in single, sometimes in double series, in a slight arc, with convexity outwards; the succeeding tubercles are in a more or less straight line, sometimes in single series throughout, sometimes in irregular double series, for another quarter of the length of the interstice; the remaining portion is always tuberculate in single series.

Type in author's collection.

TALAUINUS HYSTRIX, n. sp.

♂ Size moderately large, elongate, suboblongate. Black, without clothing; setae black.

Head convex; forehead slightly depressed in front, the depression bounded on either side by a short ridge, the continuation backwards of the external rostral ridges. Rostrum short, deeply excavate; external ridges prominent; moderately closely setigero-punctate; internal ridges obsolete; median area not raised; sublateral sulci, short, subtriangular, foveiform, situated at extreme base of rostrum and connected across base. Scrobes open behind, reaching almost to eyes. Eyes subovate, almost rotundate. Prothorax (5 x 6 mm.) rather strongly dilate; apical border with moderately prominent ocular lobes. Disc strongly convex transversely; subapical construction barely traceable; without median impression, but with indefinite sublateral impressions; moderately closely set with rather strong, rounded tubercles, smaller in immediate centre, and also along sublateral impressions. Sides with granules obsolete. Elytra (11 x 7 mm.) not greatly widened on sides; base arcuate, humeri marked by outwardly projecting tubercles. Disc without evident punctures, but with numerous conspicuous granules, not definitely traceable into series; interstices strongly tuberculate, tubercles subconical basally, large and acutely conical, almost spinose, posteriorly and laterally; sutural interstices with a row of fine granules, and a few larger confluent ones at base; second with, as a rule, from two to four (in type-form), about middle; third with a row from base to halfway down declivity, varying from six to

eleven in number; fourth with from one to three, anterior to middle; fifth with from five to nine; sixth with from six to eight strong, more outwardly directed, tubercles. Sides with tubercles subobsolete. Apical ventral segment with a median excavation, subdivided into two deeper, suboval, longitudinal depressions, by a somewhat raised median ridge, fringed at extreme apex with dense hirsute setae; with a small tubercle on each side of the excavation near apex, slightly projecting over excavation. Anterior femora with a short ridge on the lower surface.

♂ In appearance and sculpture very similar to male; slightly more ovate; beneath convex, fifth segment with a Λ shaped impression, enclosing a somewhat raised, rather closely punctured area.

Dimensions.—♂ 17.5 x 7; ♀ 17 x 7 mm.

Hab.—Victoria, Portland (J. E. Dixon).

Of this fine species I have before me a series of 60 specimens, all sent by Mr. J. E. Dixon. This long series has enabled me to take into consideration questions of variation in size and tuberculation. In regard to size there is not an extreme range, the smallest male measures 15 x 6 mm., and the largest female 18 x 8 mm.

I have given the general range of the number of tubercles on each interstice in the description, but as a rule the highest and lowest numbers are exceptional. In regard to the second interstice, occasionally five tubercles may occur, while in one specimen there are none on that interstice. In the type ♂, on the second interstice immediately above the apex, occurs a short tubercle or spine; this is as a rule absent, being present in only 12 out of 60 specimens, and in 6 of these it occurs on one side only. It is not a sexual character, though the tubercles seem to occur rather oftener in the male.

Of previously described species, the present one is most closely allied to *T. tuberculatus*, Macl. The apical excavation is similar in type in the two species; in *T. tuberculatus*, however, it is wider, and the secondary depressions are farther apart, and not so deep. Apart from the anal excavation, however, *T. hystrix* differs from *T. tuberculatus* in its relatively short, more robust form, and in the complete absence of the variegate clothing so characteristic of *T. tuberculatus*.

TALaurINUS LEAI n. sp.

♂ Large; elongate, subparallel. Black, without clothing above, a narrow line of silaceous scales on each side of median line and marginal plate of rostrum. Setae black.

Head and rostrum continuous above in profile; forehead slightly depressed at base of rostrum; head and rostrum moderately closely punctate, punctures distinct, rounded, nowhere confluent, coarser and rather closer together on rostrum. Rostrum excavate, external ridges subparallel; median area not raised, but with a narrow median laevigate line; internal ridges obsolete; latero-basal sulci subtriangular, deep, foveiform. Prothorax (5.5 x 7 mm.) rather strongly ampliate, widest in front of middle; apical margin with post-ocular emargination but with lobes indefinite; subapical constriction indistinct. Rather closely set with moderately small rounded granules, slightly larger along constriction, and very feebly transverse in middle; sides granulate. Elytra (12 x 7 mm.) subparallel; humeri strongly tuberculiform, outwardly projecting; base between humeri gently concave, and with thickened basal border, absent in middle; derm granulate-punctate between the tubercles, no definite arrangement into striae. Tubercles strong, acutely conical posteriorly, less prominent, somewhat elongate on the second and third interstices at base; second with six, not extending down declivity; third with eight, at intervals, from base to apex, the last two or three on declivity in line with second interstice; fourth without tubercles; fifth with eight, at intervals, from base down declivity; sixth with six, rather closer together, strongly conical and outwardly directed; lateral interstices nodulose. Ventral segments flattened; basal segments finely strigose, suture between them depressed; intermediate segments smooth, rugosely punctate at sides, less so in middle; apical segment rugosely punctate, with a feeble triangular depression at apex, slightly deeper along posterior margin, depression with short, thick, setose hair. Anterior femora with a feeble ridge beneath.

♀ More ovate; convex beneath; apical ventral segment with a short transverse impression at apex.

Dimensions: ♂ 20 x 7 mm.; ♀ 18 x 7 mm.

Hab.—West Australia, Swan River, Darling Ranges.

Type in A. M. Lea's collection.

Closest to *T. semispinosus* but considerably larger, more parallel, with considerably stronger tuberculation of elytra. The prothoracic granules are about the same size, but not quite so depressed, and the prothorax is notably larger and more transverse. The rostral punctures—a fairly constant feature in this group—are similar.

TALaurINUS VALIDUS, n. sp.

♀ Large, robust, elongate-ovate. Black, dull; practically without clothing above; sides of elytra maculate with white in depressions.

Head convex, front shallowly concave, in middle slightly raised; profile of head continuous with that of rostrum. Rostrum short, excavate; external ridges subparallel, continued on to head, bordering the concavity; median area sublaevigate, not raised; internal ridges obsolete; lateral basal sulci short, deep, triangularly foveiform, not meeting across base; punctures of head and rostrum obsolescent. Scrobes open posteriorly. Eyes small, subrotundate. Prothorax (5.5 x 7 mm.) widest somewhat in front of middle; apical margin with moderately deep postocular emargination; subapical impression not clearly defined; disc convex, set with large, isolated, rounded tubercles, the central ones very slightly transverse. Sides with tubercles smaller. Elytra (14 x 9 mm.) evenly and gently rounded on sides; apex moderately strongly rounded; base rather strongly emarginate, the humeri strongly produced, tuberculiform, the basal margin thickened on each side of suture owing to the confluence of the basal tubercles of the second and third interstices. Disc of elytra granulose between the tubercles, punctures not definitely traceable. Suture with small granules, obsolete posteriorly, becoming larger towards base and merging into basal border on either side, leaving a marked depression at junction of suture with base. Other interstices strongly tuberculate, tubercles large, separate, rounded anteriorly, becoming conical posteriorly and laterally; second with five from base to edge of declivity; third with nine, from base practically to apex, the last two or three on declivity, approximated towards middle, so as to be almost in line with second interstice; fourth with one on basal border, and one or two nearer middle of interstice; fifth with strong humeral tubercle, and six strong conical tubercles, extending down declivity; sixth with seven strong conical tubercles, outwardly directed. Sides with depressions more defined and arranged in series, the interstices nodulose. Beneath convex; depressed along suture between first and second segments, basal segments minutely transversely strigose; fifth segment with shallow transverse impression at extreme apex.

Dimensions.—♀ 21 x 9 mm.

Hab.—West Australia, Esperance Bay, Swan River.

Type in A. M. Lea's collection.

Allied to *T. semispinosus* but with larger and much stronger tubercles, particularly on the prothorax and on the more lateral elytral interstices. It is possible that a long series of *T. semispinosus* might show forms linking up the two species, but even in that case I think this form well worthy of a distinctive name.

TALACRINUS CARINATOR, n. sp.

♂ Large, elongate-ovate. Black; rather densely clothed, except on costae, with minute, muddy-grey subpubescence, hardly squames; median ventral vitta dark brown; setae black.

Head convex, slightly ridged on either side in continuation of the external rostral ridges; forehead feebly depressed in front. Rostrum excavate; external ridges somewhat nodulose, traversed by two slight transverse impressions, and separated from head by slight impression; internal ridges less prominent than external, convergent, apices not quite meeting; median area depressed; sub-lateral sulci narrow, rather shallow, running into transverse depression at base of rostrum. Scrobes ending far from eyes. Eyes ovate. Prothorax (5 x 5 mm.) little widened on sides; apical margin feebly rounded above, with slight post-ocular emargination. Disc with an ill-defined, transverse, subapical constriction, and rather broad median area, free from granules; with rounded granules, moderately large, not closely set, varying in size; tending to run together on either side of median line; sides granulate. Elytra (14 x 8 mm.) elongate-ovate, widest behind middle, apex rounded, feebly mucronate at suture; base gently arcuate, humeri thickened, somewhat out-turned. Disc with three broad sulciform striae, each composed of a double series of foveae; in each series foveae small, rather shallow, not confluent with those above or below, less marked off from, though not absolutely confluent with, those of the adjacent series. Interstices two, four, and six not raised; three, five and seven strongly raised, costiform; sutural less prominent with a row of more or less confluent granules, more strongly costate at base; third very strongly raised and costiform, narrow, somewhat crenulate; fifth almost as strongly raised as third; seventh showing some tendency to resolve into its component granules. Sides foveo-striate in single series; interstices with sub-obsolete granules. Intermediate ventral segments long; fifth with shallow median depression, and a more strongly depressed pit at extreme apex. Anterior femora simple. *Dimensions*: ♂ 22 x 8 mm.

Hab.—New South Wales, Coramba (W. Heron per H. J. Carter).

Type in author's collection.

Close to *T. niveo-cittatus*, but differing in the colour of the clothing; the prothoracic granules are also smaller and less confluent, and the elytral interstices narrower, more raised and less crenulate.

TALaurINUS POSTICALIS, n. sp.

♂ Elongate, narrow, size moderately large. Black, with muddy-grey clothing in depressions, giving insect a dingy appearance. Setae few, mostly absent from elytra, of a light brownish colour. Beneath with a broad, golden-brown, hirsute vitta, extending the length of abdomen.

Head and rostrum in the same plane above; forehead feebly concave. Rostrum moderately long, deeply excavate, external ridges with a light sinuation about middle, slightly thickened at base; internal ridges short, little prominent, convergent but not meeting; median area deeply depressed, sulciform posteriorly, widening out in front; sublateral sulci short, not very deep, running into depression at base of rostrum, behind the internal ridges. Scrobes simple, ending far from eyes. Eyes ovate. Antennal scape moderately long, rather strongly incrassate, slightly curved backwards. Prothorax (4.5 x 4.5 mm.) subcylindrical, little rounded on sides; apical margin lightly sinuate above, more deeply at sides; subapical impression ill-defined, irregular; disc with irregular depressions and nodulose, irregular, confluent elevations, and more definitely granules laterally; sides with flattened granules. Elytra (11 x 7 mm.) slightly wider at base than prothorax, thence evenly and gently rounded on sides; base lightly emarginate, humeri marked by thickened nodule. Disc with three broad foveolate sulci, foveae extremely irregular and ill-defined, not marked off from each other laterally, but separated at irregular intervals above and below by irregular thickened ridges; the outer sulcus with foveae smaller, more punctiform but still ill-defined. Interstices two, four and six quite obsolete, the others costiform; first not elevated except at bottom of declivity, where it is raised into a strong rounded ridge; third interstice very prominent and costiform, somewhat flexuous in outline, extending from base to halfway down declivity; fifth somewhat less elevated, showing a slight tendency to break up into its component granules, extending from humeral angle to edge of declivity; seventh forming lateral boundary, costiform, less prominent, also showing tendency to break up into granules. Sides foveo-striate, foveae small, punctiform; interstices slightly elevated, hardly costate, and not definitely granulate. Beneath with ventral

segments long; fifth segment with a median depression, obscured by vitta. Anterior femora simple. *Dimensions*: ♂ 19 x 7 mm.

Hab.—New South Wales, Coramba (W. Heron per H. J. Carter.)

A typical member of the costate section, I know of no other species with which I can compare it except *T. crenulatus*. From that species it differs in its much larger size, and different clothing, *inter alia multa*. In general appearance it is not unlike a species of *Mythites*, but it is a typical *Talaurinus*.

Type in author's collection.

SCLERORINUS DIXONI, n. sp.

♂ Elongate, large. Black; densely clothed with golden brown squamose subpubescence, prothorax feebly trivittate with lighter, elytra with a few whitish maculae; median ventral vitta dark golden-brown; setae dark.

Head and rostrum as in *S. sabulosus*. Prothorax (7 x 8 mm.) widely ampliate; apical margin lightly rounded above, with rather deep post-ocular emargination; subapical impression rather well marked; median line free from granules but not deeply impressed, disc set with small, more or less round, granules, smaller in centre, somewhat flattened, and variable in size and to some extent in shape. Sides with granules becoming progressively smaller towards coxae, but not obsolete except posteriorly. Elytra (15 x 8 mm.) elongate, very little widened on sides, narrowed to apex from level of declivity, apex rounded; base feebly arcuate, humeral angles marked by a small tubercle; seriate punctures small, obscure, each subtended by a small, but definite, setigerous granule; interstices tuberculate, sutural with small granules, somewhat larger near base; second with three or four small isolated tubercles; third with a continuous row of about twenty-one small tubercles, or granules, feebly subconical, slightly more so posteriorly, closely set, and extending from base almost to apex; fourth with one or none; fifth and sixth each with a continuous row of about sixteen similar to third; lateral interstices with small tubercles, not at all prominent. Beneath as in *S. sabulosus*. Anterior femora ridged beneath.

♀ Shorter and more ovate than the ♂; prothorax slightly less ampliate; elytra with tubercles more numerous and rather smaller, second with six, third with a continuous row as in the ♂, but a number of the middle tubercles duplicated, fourth with five, fifth with twenty, sixth with sixteen.

Dimensions.—♂ 23 x 8 mm.; ♀ 22 x 9 mm.

Hab.—Victoria, Ouyen (J. Dixon, Searce, Mellor), Kow Plains.

Of this species I have seen a large number of specimens sent to me by Mr. J. Dixon and by the National Museum. All of the specimens agree in having constantly small tubercles, noticeably smaller than in *S. sabulosus*. From that species it also differs in the different clothing and in the more granulate sides of the prothorax. The median vitta in the ♂ is also narrower and darker. The differences in the elytral granulation are more marked between the females of the two species, than in the case of the opposite sex.

Type in author's collection.

SCLERORINUS GOUDIEI, n. sp.

♂ Close to *S. Dixoni* and with similar clothing.

Head, rostrum and prothorax as in *S. Dixoni*. Elytra (15 x 8 mm.) with tubercles notably larger than in *S. Dixoni* (also larger than in *S. sabulosus*), the number of tubercles on the interstices 2 to 6 being 5, 21, 3, 17, and 16, on the left side of the type; on the third interstice tubercles becoming slightly transverse, the posterior ones conical. Otherwise as in *S. Dixoni*.

♂ Differs from ♀ in usual manner; compared with female of *S. Dixoni*, the tubercles are noticeably larger, fewer in number and not duplicated on the third interstice, and with none on the fourth.

Dimensions.—♂ 23 x 8 mm.; ♀ 22 x 9 mm.

Hab.—Victoria, Birchip (J. C. Goudie).

Type in author's collection.

Though compared with *S. Dixoni*, I regard this species as close to *S. sabulosus*. It differs from the latter in the larger elytral tubercles of both sexes, as well as in the clothing and sides of prothorax. Three specimens from the National Museum labelled Western District should perhaps be regarded as distinct. They differ in the elytral tubercles being slightly larger and fewer in number on the third, fifth and sixth interstices, the tubercles are also rather more conical. The tubercle index is.—♂ 5, 15, 5, 13, 11; ♀ 6, 17, 4, 16, 13. Their dimensions are.—♂ 22 x 7.5 mm.; ♀ 22 x 9 mm. At present I think it better to consider these as forms of *S. Goudiei*.

SCLERORINUS INORNATUS, n. sp.

♂ Elongate-ovate, rather small. Black, legs diluted with red; above moderately densely clothed with minute, black subpubescence, and with long, black setae; beneath with scattered, black setae.

Head gently convex above, continuous with rostrum. Rostrum little excavate; external ridges subparallel; median carina distinct, continued as a bare line up forehead, point of junction marked by a round, punctiform fovea; lateral-basal sulci triangular, moderately deep. Scrobes simple. Eyes ovate. Prothorax (4 x 4 mm.) little rounded on sides; apical margin slightly sinuate above, with deep post-ocular emargination. ocular lobes well defined. Disc with moderately distinct subapical constriction and rather indistinct median line; almost smooth, except for some nearly obliterated longitudinal setigerous ridges; sides obsolete granulate above. Elytra (9 x 6) gently widened on sides; base subtruncate, humeral angles subrectangular, not prominent; disc convex, strial punctures obsolete; interstices feebly raised, with a few isolated, almost obliterated, tubercles, on third interstice extending down declivity; sixth interstice with tubercles smaller, slightly more definite and much closer together. Sides with seriate punctures more evident, interstices with almost completely obsolete granules, closely set, and indicated mainly by the setae. Beneath laevigate, with scattered setigerous punctures. Apical segment with a shallow, rather broad, median, channel, but without tubercles. Anterior tarsi with three basal segments transverse, the second and third spongiose beneath except along median sulcus; intermediate and posterior tarsi with segments more elongate, not spongiose.

♀ Somewhat larger, more ovate, more produced at apex, the elytra separately acuminate; sculpture similar, but interstices not raised, and tubercles slightly more distinct. Beneath convex; apical segment with a narrow median impression, not quite reaching anterior margin, deeper posteriorly; apical margin raised and bisinuate in middle. Anterior tarsi not spongiose.

Dimensions.—♂ 15 x 6; ♀ 16 x 7 mm.

Hab.—Victoria, Gippsland (C. French).

Types in National Museum, Melbourne.

Two males in the museum collection, from Portland and Western Districts, differ in the lighter, more brownish, clothing, and in the less obliterated sculpture.

The species is undoubtedly close to *S. obliteratus*, but, if I am correct in associating that name with a species found in the Victorian Alps, the present species is readily separated by the apical ventral segment being without tubercles in the male. The sculpture is also more obliterated in *S. inornatus*, compared with the type ♀ of *S. obliteratus*.

ACANTHOLOPHUS DIXONI, n. sp.

♂ Elongate, suboblongate, flattened above; size moderately small. Black. Moderately densely covered with dark brown subsquamose clothing; with a light grey median vitta, and squames of similar colour, lightly scattered on the more lateral elytral tubercles; with white almost silvery squames, forming two small maculae on the sides of the prothorax, and forming a moderately distinct vitta, with a few macules above it posteriorly, on the sides of the elytra; beneath with greyish squames lightly sprinkled over metasternum, and at sides of ventral segments; legs with similar squames, and with a moderately distinct whitish band, about one-third from the apex of the femora.

Rostrum short, the upper surface feebly concave, almost flat, with a median fovea or pit; lateral margins little raised, not tuberculate or angulate in front, gently convex in profile and continued back to supraocular crests. Head with a single crest over each eye, strongly curved backwards and upwards, the apex sharply pointed; the crest joined at base across head by a strong ridge, with a median ridge running forward from it, and almost immediately bifurcating, the limbs running forwards and outwards to join the lateral rostral margins near the base, and enclosing with them a deep fossa on each side. Forehead concave behind the ridge joining the crests. Scrobes short; a deep groove running up from in front of eye, on to the side of the crest. Prothorax (3.5 x 4.5), slightly emarginate behind eyes, ocular lobes rather feebly developed. Disc with a strong transverse impression behind apex, and a similar one immediately in front of base; with median and lateral groups of tubercles on each side; with median area longitudinally furrowed. Median tubercles moderately large, about six on each side, the apical pair larger, more elongate, situated in front of subapical impression, the other tubercles varying in size, not all in line, the third from the front situated further out than the others. Lateral tubercles large, flattened above, obtusely pointed, outwardly directed, with a feeble inclination backwards; consisting of three larger and a few smaller tubercles; two of the larger tubercles situated in front of middle and conjoined at base, the hinder of the two the larger, the third large tubercle situated behind middle, smaller than the larger of the two anterior tubercles; a small tubercle situated anterior to subapical impression, one situated between and below the larger tubercles, and two situated posteriorly. Sides somewhat rugosely strigose. Elytra (8.5 x 5 mm.) little wider

than prothorax; little rounded on sides. Disc with three rows of spinose tubercles, the intermediate interstices rather coarsely granulate, suture granulate, the granules not extending down declivity; first row with eight or nine tubercles, the basal ones small, rounded, becoming progressively larger, the last three or four spinose, the last one the largest; second row not quite reaching to base, running obliquely backwards and outwards, about seven to eight in number, the tubercles small at base, becoming progressively larger and more spinose, the last four or five strong, outwardly directed, spines, reaching slightly beyond first row; third row extending from shoulder back, with a slight inclination outwards, consisting of five large, outwardly directed, spines, the basal two more or less conjoined, larger than the others, the rest subequal. Sides with two upper interstices granulate. Beneath rather closely, somewhat rugosely, punctate, the basal segments transversely strigose. Legs simple; tarsi spongiose beneath except along median groove.

♀ Resembles ♂, but is much larger; elytra wider than prothorax; spines on elytra somewhat smaller, the two humeral spines almost completely conjoined to form an oblique humeral crest; convex beneath, basal segments more lightly strigose, other segments hardly rugose.

Dimensions.—♂ 12 x 5 mm.; ♀ 16 x 7; P. 4.5 x 5.5; E. 10 x 7 mm.

Hab.—Victoria, Portland (J. E. Dixon). Type in Coll. Ferguson.

Described from 2 ♂♂ and 11 ♀♀. In the type ♂ the humeral tubercles are separate, except at base, in the other ♂ and in all the females, these are almost completely conjoined.

In appearance a very ordinary *Acantholophus* the present species may be separated from most by the simple supraocular crests. Of the described species with simple crests, it differs from all except *A. gladiator* and *A. aureolus*, in having the intermediate tibiae simple and not notched at apex. From the other two, it is so utterly different that no comparison is necessary. Apart from the simple crests, the present species strongly resembles many of the *Adelaidae*-group.

ACANTHOLOPHUS BREVICORNIS, sub. sp. nov.

♂ Moderately large, elongate, suboblongate; very close to *Ac. dumosus*. Black; sparsely clothed with brownish squames above, sides maculate with greyish.

Rostrum gently concave above, with a shallow median groove; lateral margins subangulate in front, lowest at base; basal ridges—intercrystal and oblique—moderately distinct, basal foveae rather shallow. Supraocular crests simple, very short, obtusely pointed, projecting at right angles to the upper surface of head, with no outward or backward tendency. Prothorax (4 x 5 mm.) transverse; disc with subapical and sub-basal constrictions; median tubercles relatively small, anterior pair larger, more elongate, sub-cristiform, other tubercles not arranged in single line, middle tubercles smaller, more outwardly placed, penultimate tubercles rather larger, somewhat backwardly projecting; lateral tubercles dentiform, broad at base, outwardly projecting, 2 large conjoined tubercles anterior to middle, one posterior to middle, also a small tubercle anterior to subapical constriction. Elytra (10 x 6 mm.) subparallel, not greatly wider than prothorax. With three rows of tubercles, the other interstices moderately coarsely granulate: first row with nine tubercles, the basal ones small, rounded, the last four spinose, becoming progressively larger; tubercles ending at edge of declivity, two or three small spicules present on declivity, the last subapical, larger, almost spines: second row with six tubercles, the basal ones small, the last three larger, outwardly projecting, and extending more posteriorly than the first row: third row with five or six from shoulder to about middle, strong outwardly-directed spines, the second somewhat larger than the rest, the others subequal or decreasing slightly in size. Beneath coarsely, rugosely punctate, the punctures longitudinally confluent. Middle tibiae with strong subapical notch.

♀ Somewhat more ovate, more convex beneath, intermediate tibiae simple.

Dimensions.—♂ 16 x 6 mm.; ♀ 16 x 7 mm.

Hab.—Victoria, Portland (J. E. Dixon).

Described from a series of 9 specimens sent by Mr. J. E. Dixon; type in author's collection. Closely allied to *Ac. dumosus* Bohem., of which I regard it as a geographical race or subspecies. It differs from specimens of *Ac. dumosus* from King George Sound in (a) more parallel sided form, (b) shorter supraocular crests, (c) rather larger prothoracic tubercles, (d) the presence of subapical elytral spicules. These latter are smaller than in *Ac. apicalis*, from which species it also differs in the stronger elytral tubercles.

ACANTHOLOPHUS ANGUSTICOLLIS, n. sp.

♂ Elongate, ovate; size moderate. Black; moderately densely covered with brown subsquamose clothing, the larger apical and lateral elytral tubercles with lighter greyish clothing on the upper surface; abdominal segments with a few greyish setae at sides; femora with grey subapical patch on outer surface, forming an incomplete ring.

Rostrum somewhat narrower than head, rather strongly concave above, with a moderately deep, narrow median impression posteriorly; lateral margins strongly angulate in front of middle, sloping anteriorly to apex, and posteriorly to base of supra-ocular crests. Crests simple, broad antero-posteriorly, the upper edge rounded in front, feebly notched above, and produced to a small degree backwards and upwards, the apex somewhat obtusely pointed. Intercristal and oblique ridges somewhat prominent, the basal foveae rather deep. Forehead feebly concave in front. Scrobes ending far from eyes; a moderately deep groove running from in front of eye, on to side of crest, as far as notch in upper margin. Prothorax (3.5 x 4 mm.) not greatly transverse, apical margin somewhat feebly emarginate behind eyes, lobes indefinite. Subapical constriction distinct, sub-basal less so. With median and lateral groups of tubercles; intervening spaces somewhat sparsely granulate, median area with a narrow impression, deepest in middle. Tubercles of median group rather small, slightly elongate, about six in number, with three or four smaller ones about middle, more outwardly placed; anterior pair hardly cristiform, situated in front of subapical constriction, the second pair bridging over the constriction. Lateral tubercles triangularly dentiform, broad at base, flattened above, outwardly projecting; a conjoined pair in front of middle and a single one posterior to middle; also a small rounded tubercle anterior to constriction. Elytra (10 x 5.5 mm.) gently widened posteriorly; disc with three rows of tubercles, the other interstices rather conspicuously granulate. First row of tubercles about ten in number, the basal ones small rounded, the last three becoming progressively larger and spinose; second row with about ten, not quite reaching base, running backwards and outwards and reaching beyond level of first row, the basal tubercles small, becoming progressively larger, the last four or five spiniform, outwardly directed, the apical two slightly smaller than the immediately antecedent ones, and all smaller than the apical tubercles of the first row; third row with from eight to ten, largest

about humeral angle (but still smaller than the spines of the other rows), spinose, becoming smaller posteriorly and passing into mere granules. Sides with the upper three interstices distinctly granulate. Beneath subglabrous, with small, setigerous punctures; fifth segment more strongly convex than the others. Legs simple, tibiae not notched, tarsi spongiose beneath.

♀ Of more ovate form; with elytral tubercles smaller, those of the first row more numerous, and the anterior ones reduced to mere granules; apical ventral segment with a strongly raised rounded prominence, highest in middle, but occupying nearly the whole segment.

Dimensions.—♂ 15 x 5.5 mm.; ♀ 16 x 7 mm.

Specimens of this species, taken by Mr. T. G. Sloane at Portland, Victoria, in 1887, have been long in my collection, and lately Mr. J. E. Dixon has forwarded me a long series (48) from the same locality. Though variable to a slight extent in size, there is little other difference to be detected in the series. The crest over the eye at first sight appears single, but I believe it is really composed of two conjoined tubercles; the species being therefore related to *Ac. Adelaidae* and *Ac. approximatus*.

It differs from all of this group in the relatively narrower prothorax, and in the more numerous and more closely set elytral tubercles.

Type in author's collection.